# CGA/VGA JAMMA

# GAME COLLECTION

# EGANGA LAMINA

CAME

#### I. PCB DIP Switch Settings

DIP	SW3	1	2	3	4
c ot the	Normal	OFF	443	-	
Screen Orientation	Flip Screen	ON		OFF	
Display Mode	CGA-15.75Khz		OFF		
(CRT)	VGA-31.5Khz		ON		
High Cours Cours	Disabled			OFF	
ligh Score Saver	Enabled			ON	

#### II. System Setup

Keep TEST SW or SERVICE SW pressed and power on to enter system setup mode or system test mode.

The first page is **Screen Test**. You may tune your screen size at this page or press TEST SW to enter next page.

If high score saver is supported and enabled, the second page is Clear High Score. You may clear all saved high scores by pressing both START and S1 buttons. Press TEST SW to enter next page or press SERVICE SW to return last page.

The next page is System DIPSW Setup. Use joystick to move cursor or S1 buttons to switch ON/OFF. The system DIPSW is shown below:

System DIPSW Setup for All Amusement PCBs

	DIP SW1	1	2	3	4	5	6	7	8
	I coin I credit	OFF	OFF	OFF	OFF				
	1 coin 2 credit	ON	OFF	OFF	OFF				
	1 coin 3 credit	OFF	ON	OFF	OFF				
	1 coin 4 credit	ON	ON	OFF	OFF				
	2 coin 1 credit	OFF	OFF	ON	OFF				
	2 coin 2 credit	ON	OFF	ON	OFF				
	2 coin 3 credit 2 coin 4 credit	OFF	ON	ON	OFF				
Cale 1		ON	ON	ON	OFF				
Com i	3 coin 1 credit	OFF	OFF	OFF	ON				
	3 coin 2 credit	ON	OFF	OFF	ON				
	3 coin 3 credit	OFF	ON	OFF	ON				
	3 coin 4 credit	ON	ON	OFF	ON				
	4 coin 1 credit	OFF	OFF	ON	ON				
	4 coin 2 credit	ON	OFF	ON	ON				
	4 coin 3 credit	OFF	ON	ON	ON				
	4 coin 4 credit	ON	ON	ON	ON				

	1 coin 1 credit	OFF	OFF	OFF	OFF
	1 coin 2 credit	ON	OFF	OFF	OFF
	1 coin 3 credit	OFF	ON	OFF	OFF
	1 coin 4 credit	ON	ON	OFF	OFF
	2 coin 1 credit	OFF	OFF	ON	OFF
	2 coin 2 credit	ON	OFF	ON	OFF
	2 coin 3 credit	OFF	ON	ON	OFF
Coin 2 2 coin 4 credit	ON	ON	ON	OFF	
Com 2	3 coin 1 credit	OFF	OFF	OFF	ON
	3 coin 2 credit	ON	OFF	OFF	ON
	3 coin 3 credit	OFF	ON	OFF	ON
	3 coin 4 credit	ON	ON	OFF	ON
	4 coin 1 credit	OFF	OFF	ON	ON
	4 coin 2 credit	ON	OFF	ON	ON
	4 coin 3 credit	OFF	ON	ON	ON
	4 coin 4 credit	ON	ON	ON	ON

8	DIP SW2	1	2	3	4	5	6	7	8
Down Maria	Yes	OFF							
Demo Music	No	ON							111
Game Demo	No		OFF				0.00		
Sound	Yes		ON						
Demo Music	Model		10	OFF					
Mode	Mode2			ON					
C= 1410	No		J. Phys.		OFF				
Free Play	Yes				ON				
	Upright/1 Joystick					OFF	OFF		
Cohinat	Cocktail					ON	OFF		
Cabinet	Upright/2 Joysticks					OFF	ON		
	Cocktail					ON	ON		

Each game can be enabled or disabled respectively. Disabled games would not be shown for playing. Press setup to finish this step or press TEST SW to enter followed pages for DIPSW setup of each game or SERVICE SW to return last page.

The last two pages are Volume Adjust and I/O Test. You may adjust audio volume or diagnose PCB I/O status at these two pages.

For system test mode, only Screen Test and I/O Test pages are included.

If high score saver is enabled, high scores will be saved when players beat the record and each game is *completely* over.

III. JAMMA Wire Map

Part Side			Solder Side
GND	1	1	GND
GND	2	2	GND
+5V	3	3	+5V
+5V	4	4	+5V
	5	5	
+12V	6	6	+12V
	7	7	
1P COIN METER	8	8	2P COIN METER
	9	9	
SPEAKER +	10	10	SPEAKER -
	11	11	
VIDEO R	12	12	VIDEO G
VIDEO B	13	13	VIDEO SYNC
GND	14	14	SERVICE
TEST	15	15	
1P-COIN	16	16	2P-COIN
1P-START	17	17	2P-START
1P-UP	18	18	2P-UP
1P-DOWN	19	19	2P-DOWN
1P-LEFT	20	20	2P-LEFT
1P-RIGHT	21	21	2P-RIGHT
1P-S1	22	22	2P-S1
1P-S2	23	23	2P-S2
1P-S3	24	24	2P-S3
	25	25	
	26	26	
GND	27	27	GND
GND	28	28	GND

#### IMPORTANT NOTE:

The PCB voltage of +5V pin CAN NOT exceed +5.5V.

## **Game List**

Ms Pacman



Donkey Kong



Galaxian



Mr. Do



Galaga



Donkey Kong Junior



Dig Dug



Space Invaders



Frogger



Donkey Kong 3



Crush Roller



Pacman



Galaga3

1942





















Time Pilot



Space Panic



Super Cobra

Super Breakout



New Rally X



Arkanoid



Qix



Juno Frist



Xevious



Mr. Do's Castle



Moon Cresta







#### Pinball Action



Bomb Jack

1943



Shao-Lin's Road

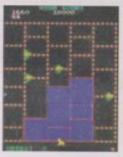
Scramble



Van-Van Car



Amidar



Super Pacman



King & Ballon



Pa-cman Plus



Zaxxon





Dig Dug 2

#### MS Pacman DIPSW Setup

DIP	SWI	1	2	3	4	5	6	7	8
	5	OFF	OFF						
110	3	ON	OFF						
Life	2	OFF	ON						
	1	ON	ON						
	None			OFF	OFF				
Extra life	20000			ON	OFF				
	15000			OFF	ON				
	10000			ON	ON				
Diffculty	Easy					OFF			
Difficulty	Hard					ON			
Speed	Normal						OFF		
apecu	Fast						ON		
Ms Pacman	Heart							OFF	
Bean	Dot							ON	

# Galaga DIPSW Setup

DIP	SI	W1		1.	2	3	4	5	6	7	8
		Easy	0	FF	OFF						
DIP Difficulty Continuous Shooting  Extra Life  Life  DIP		Hardest	0	N	OFF						
		Hard	0	FF	ON						
		Medium	0	N	ON				12		
Continuous		No				OFF					
Shooting		Yes				ON					
		30k 80k		30	k		OFF	OFF	OFF		
	B	20k 80k 80k	D	30	k 150k	150k	ON	OFF	OFF		
	O 30k 120k 120k	30k 120k 120k	B 30	30k 120k			OFF	ON	OFF		
Fates Life		NUS	30	k 100k	100k	ON	ON	OFF			
Extra Lite	S	20k 60k	8 2	30	k 150k		OFF	OFF	ON		
	1	1 20k 70k 70k		30	k 120k	120k	ON	OFF	ON		
	Н	30k 100k 100k		30	k 100k		OFF	ON	ON		
		(None)					ON	ON	ON		
110	5	(bonus2)								OFF	OF
Lite	3	(bonus1)								ON	OFI
	4	(bonus1)								OFF	ON
	2	(bonusl)								ON	ON
DIP	SV	V2		1	2	3	4	5	6	7	8
Bullet Speed		Normal	0	FF							
Dutter Speed		Fast	0	N							

## Frogger DIPSW Setup

DIP	DIP SW1		2	3	4	5	6	7	8
	3	OFF	OFF						
110	7	ON	OFF						
Life	5	OFF	ON						
	3	ON	ON						

## Donkey Kong DIPSW Setup

DIP S	WI	1	2	3	4	5	- 6	7	8
	3	OFF	OFF						
-	4	ON	OFF						
Life	5	OFF	ON						
	6	ON	ON					N.	
	7000			OFF	OFF				
	10000			ON	OFF				
Extra Life	15000			OFF	ON				
	20000			ON	ON	1			

# Donkey Kong Junior DIPSW Setup

DIP S	W1	1	2	3	4	5	6	7	- 8
	3	OFF	OFF			8			
2.0	4	ON	OFF						
Life	5	OFF	ON						
	6	ON	ON		-				
	7000			OFF	OFF				
	10000	-		ON	OFF				
Extra Life	15000			OFF	ON				
	20000			ON	ON				

# Donkey Kong 3 DIPSW Setup

DIP S	SW1	1	2	3	4	5	6	7	- 8
	3	OFF	OFF						
	4	ON	OFF						
Life	5	OFF	ON						
Lile	6	ON	ON						
	30000			OFF	OFF				
	40000			ON	OFF				
Extra Life	50000			OFF	ON				
	None			ON	ON				

	30000	OFF	OFF		
Additional	dditional 40000 Bonus 50000 None Easy Medium Hard	ON	OFF		
Bonus	50000	OFF	ON		
	None	ON	ON		
	Easy			OFF	OFF
-				ON	OFF
Difficulty	Hard			OFF	ON
	Hardest			ON	ON

Galaxian DIPSW Setup

DIP S	W1	1	2	3	4	5	6	7	8
	7000	OFF	OFF						
Evres Life	10000	ON	OFF						
Extra Life		OFF	ON						
	20000	ON	ON						
V 76	2			OFF					
Life	3			ON					

Dig Dug DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	8
See Constitution	No	OFF							
Continue	Yes	ON							
	Easy		OFF	OFF					
T91000	Medium		ON	OFF					
Difficulty	Hard		OFF	ON					
	Hardest		ON	ON					
	None				OFF	OFF	OFF		
Continue Difficulty Extra Life	20k 70k 70k				ON	OFF	OFF		
	10k 50k 50k				OFF	ON	OFF		
P. L. TTE	20k 60k				ON	ON	OFF		
Extra Life	Easy Medium Hard Hardest None 20k 70k 70k 10k 50k 50k 20k 60k 10k 40k 40k 10k 40k 20k 60k 10k 3 5 1				OFF	OFF	ON		
	10k 40k				ON	OFF	ON		
	20k 60k 60k				OFF	ON	ON		
	10k				ON	ON	ON		
	3							OFF	OFF
V 14	5							ON	OFF
Life	1							OFF	ON
	2							ON	ON

Crush Roller DIPSW Setup

DIPS	WI	1	2	3	4	5	6	7	8
	3	OFF	OFF						
14.144	4	ON	OFF						
Life	5	OFF	ON						
	6	ON	ON						
parent la	Easy			OFF					
Difficulty	Hard			ON					

Mr. Do DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	8
	Easy	OFF	OFF						
Parison . No.	Medium	ON	OFF						
Difficulty	Hard	OFF	ON						
	Hardest	ON	ON						
0. 2.3	Easy		110	OFF					
Special	Hard		FILE	ON					
T	Easy	100			OFF				
Extra	Hard		Fel		ON				
	3					OFF	OFF		
Extra	4					ON	OFF		
Lite	5					OFF	ON		
	2					ON	ON		

Space Invaders DIPSW Setup

DIP S	WI	1	2	3	4	5	6	. 7	8
	3	OFF	OFF						
	4	ON	OFF						
Life	5	OFF	ON						
D VIIII	6	ON	ON						
F V.C.	1500			OFF					
Extra Life	1000			ON		-			
Mode	Color				OFF				
	B&W				ON				

Pacman DIPSW Setup

DIP S	WI	1	2	3	4	5	6	7	8
	5	OFF	OFF						
	3	ON	OFF						
Life	2	OFF	ON						
	1	ON	ON						
	None			OFF	OFF				
	20000			ON	OFF				
Extra Life	15000			OFF	ON				
	10000			ON	ON				
	Easy					OFF			
Difficulty	Hard					ON			
2.	Normal						OFF		
Ghost Name	Alternate						ON		
	Normal							OFF	
Speed	Fast							ON	١.,

Galaga3 DIPSW Setup

DI	P SW1		1	2	3	-4	5	6	7	8
	0	(Easiest)	OFF	OFF	OFF					
	1		ON	OFF	OFF					
	2		OFF	ON	OFF					
rates have	3		ON	ON	OFF					
Difficulty	4		OFF	OFF	ON					
	5		ON	OFF	ON					
	6		OFF	ON	ON					
	7	(Hardest)	ON	ON	ON			- 11		
Trut	190	3				OFF	OFF			
F.10.		2				ON	OFF			
Life		4				OFF	ON			
		5				ON	ON			
	100k	300k 600k						OFF	OFF	OFF
	150k	400k						ON	OFF	OFF
	150k	400k 900k						OFF	ON	OFF
The same of the	100k	300k 300k						ON	ON	OFF
Extra Life	50k	200k 300k						OFF	OFF	ON
	50k	150k 600k						ON	OFF	ON
	50k	150k 300k						OFF	ON	ON
	30k	150k 600k						ON	ON	ON

Gyruss DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	8
	3	OFF	OFF						
T-78-0	4	ON	OFF						
Life	5	OFF	ON						
	3	ON	ON			100			
and the second	30k 60k	7 150		OFF					
Extra Life	40k 70k			ON					
	1 (Easiest)		1100		OFF	OFF	OFF		
	2				ON	OFF	OFF		
	3				OFF	ON	OFF		
19 100	4				ON	ON	OFF		
Difficulty	5(Average)				OFF	OFF	ON		
	6				ON	OFF	ON		
	7				OFF	ON	ON		
	8 (Hardest)				ON	ON	ON		

Tank Battalion DIPSW Setup

DIP S	W1	1	2	3	4	5	6	7	- 8
	None	OFF	OFF						
William Ville	20000	ON	OFF						
Extra Life	a Life 20000 15000	OFF	ON						
	10000	ON	ON						

Life	2	OFF
Latte	3	ON

1942 DIPSW Setup

DIP	SW1	1	2	3	4	5	6	-7	8
	20k 80k	OFF	OFF			W.			
Catao Life	20k 100k	ON	OFF						
Extra Life	30k 80k	OFF	ON						
	30k 100k	ON	ON						
N. C.	3			OFF	OFF				
Life	1			ON	OFF			7	
Life	2			OFF	ON				
	- 5			ON	ON				
	Normal					OFF	OFF		
Difficulto	Easy					ON	OFF		
Difficulty	Hard					OFF	ON		
	Hardest					ON	ON		

Ladybug DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	8
1113	Easy	OFF	OFF				0		
Dict.	Medium	ON	OFF						
Difficulty	Hard	OFF	ON						
	Hardest	ON	ON						
High Score	10 Letters	1000		OFF					
Names	3 Letters			ON					
* 16.	3				OFF				
Life	5				ON				

Burger Time DIPSW Setup

DIPS	W1	1	2	3	4	5	6	7	8
1.16	3	OFF							
Life	5	ON						7	
	10000	-	OFF	OFF					
Extra Life	15000		ON OFF						
Extra Life	20000		OFF	ON					
	30000		ON	ON					
Enemies	4				OFF	- 5			
Encinics	6				ON				
End of Lever	No					OFF		- 1000	
Pepper	Yes					ON			

Mappy DIPSW Setup

DIP	SW1	1	2	3	4	5	6.	7	8
	3	OFF	OFF						
Y 105	*5	ON	OFF						
Life	1	OFF	ON						
	2	ON	ON						

	*30k 80k 20k 70k	OFF	OFF	OFF			
		ON	OFF	OFF			
	20k 80k	OFF	ON				
F 116	*30k	ON	ON	OFF			
Extra Life	*40k	OFF	OFF	ON			
	*30k 100k 100k	ON	OFF	ON			
	*40k 120k 120k	OFF	ON	ON			
		ON	ON	ON			
	A				OFF	OFF	OFF
	В				ON	OFF	OFF
	C				OFF	ON	OFF
Donle	D				ON	ON	OFF
капк	E				OFF	OFF	ON
	F				ON	OFF	ON
	G				OFF	ON	ON
	H				ON	ON	ON

Centipede DIPSW Setup

DIP S	W1	1	2	3	4	5	6	7	8
	English	OFF	OFF						
	German	ON	OFF OFF ON OFF ON ON ON ON						
Language	French	OFF	ON					OFF ON	
	Spanish	ON	ON						
	2	322	-	OFF	OFF				
110	3			ON	OFF				
Life	4			OFF	ON				
	5			ON	ON		FF OFF		
	10000					OFF	OFF		
F 116	12000		ON ON		ON	OFF			
Extra Life	15000					OFF	ON		
	20000					ON	ON		
D100 - 1-	Easy					- 111	LES	OFF	
Difficulty	Hard							ON	
4 0 1	Normal						10.		OFF
Move Speed	Fast								ON

Millipede DIPSW Setup

DIP SV	V1	1	2	3	4	5	6	7	8
MINISTER AND ADDRESS OF THE PARTY OF THE PAR	Easy	OFF					100		
Millipede Head	Hard	ON							
Beetle	Easy		OFF						
Beetle	Hard		ON						
	2			OFF	OFF				
110.	3			ON	OFF				
Life	4			OFF	ON				
	5			ON	ON				

	12000	OFF	OFF		
	15000	ON	OFF		
Extra Life	20000	OFF	ON		
	None	ON	ON		
m 11	Easy			OFF	
Spider	Hard			ON	
Starting Score	No				OFF
Select	Yes				ON

DH	SW2	1	2	3	4	5	6	7	8
	English	OFF	OFF						
	German	ON	OFF						
Language	French	OFF	ON						
	Spanish	ON	ON						
	0			OFF	OFF				
6	0 1x			ON	OFF				
Bonus	0 1x 2x			OFF	ON				
Bonus	0 1x 2x 3x			ON	ON				

JR Pacman DIPSW Setup

DIP S	SW1	1	2	3	4	5	6	7	8
	1	OFF	OFF						
*10	2	ON	OFF						
Life	3	OFF	ON	OFF OFF OFF OFF ON ON ON ON					
	5	ON	ON						
Extra Life 1	10000			OFF	OFF				
	15000			ON	OFF				
	20000			OFF	ON				
	30000			ON	ON				
PATRO - Ac-	Normal		-			OFF			
Difficulty	Hard					ON			
Speed	Normal						OFF		
	Fast						ON		

Pengo DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	- 8
F . 110	50000	OFF							
Extra Life	30000	ON							
	2		OFF	OFF					
Life	3		ON	OFF					
Life	4		OFF	ON					
	5		ON	ON.					
	Easy				OFF	OFF			
DICC b	Medium				ON	OFF			
Difficulty	Hard				OFF	ON			
	Hardest				ON	ON			

Machine Set	Set1	OFF
Machine Set	Set2	ON

Phoenix DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	8
20	3	OFF	OFF						
Life	4	ON	OFF						
Litte	5	OFF	ON						
	6	ON	ON						
	3K 30K			OFF	OFF		III.		
Extra Life	4K 40K			ON	OFF				
EAUG LITE	5K 50K								
	6K 60K			ON	ON				

Time Pilot DIPSW Setup

DIP	SWI	1	2	3	4	5	6	7	8
	3	OFF	OFF				179		
Life	4	ON	OFF						
Life	5	OFF	ON						
	5	ON	ON						
Extra Life	10k 50k			OFF					
Extra Life	20k 60k			ON					
	1(Easiest)	1100	1333		OFF	OFF	OFF		H
	2				ON	OFF	OFF		
	3				OFF	ON	OFF		
Difficulty	4				ON	ON	OFF		
Difficulty	5(Average)				OFF	OFF	ON		
	6				ON	OFF	ON		
	7				OFF	ON	ON		
	8(Hardest)				ON	ON	ON		

Super Cobra DIPSW Setup

DIP SW	1	1	2	3	4	5	6	7	8
Continue	Yes	OFF							
(Single Game Only)	No	ON							
Life	4		OFF						
Life	3		ON						

Hustler DIPSW Setup

DIP :	SW1	1	2	3	4	5	6	7	8
Life	2	OFF							
Line	1	ON							

Space Panic DIPSW Setup

DIP S	WI	1 2	3	4	5	6	7	8
Extra Life	3000	OFF		100				
Extra Life	5000	ON						

110.	3	OFF	
Life	4	ON	

Super Breakout DIPSW Setup

	DIP S	SWI		-1	2	3	4	5	6	7	8
Mod	i i	Colo	r	OFF	100			1117			
IVIOU	C.	B&V	V	ON							
Life		3			OFF	100					
Liit		5			ON						
		Mediu	ım		100	OFF	OFF				
Marin C	and leave	Slow	V			ON	OFF				
Move S	peeu	Fast				OFF	ON				
		Very F	ast			ON	ON				
		None		700				OFF	OFF	OFF	
	200P	200C	200D					ON	OFF	OFF	
	400P	300C	400D					OFF	ON	OFF	
Time *	600P	400C	600D					ON	ON	OFF	
1 IIIIC	900P	700C	800D					OFF	OFF	ON	
	1200F	900C	D0001					ON	OFF	ON	
	1600P	1100C	1200D					OFF	ON	ON	
	2000P	1400C 1	1500D					ON	ON	ON	

\* Note: P: Progressive C: Cavity D: Double

S1 Button : Select Progressive S2 Button : Select Cavity S3 Button : Select Double

New Rally X DIPSW Setup

D	IP SW1	1	2	3	4	5	6	7	8
	3Cars None 4Cars None	OFF	OFF						
Duten I ife	3Cars 20k/80k 4Cars 20k	ON	OFF						
Extra Life	3Cars 20k/100k 4Cars 40k	OFF	ON						
	3Cars 20k/120k 4Cars 60k	ON	ON						
Life	3			OFF					
Litte	4			ON					

Arkanoid DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	- 8
Continue	No	OFF							
Continue	Yes	ON							
Difficulty	Easy	-	OFF						
	Hard		ON						
Cartan T. Ma	20k 60k 60k			OFF					
xtra Life	20k			ON					

Life	3	OFF		1998
Life	5	ON		
Move Speed	Normal		OFF	OFF
	Slow		ON	OFF
	Fast		OFF	ON
	Very Fast		ON	ON

Qix DIPSW Setup

DIP S	W1	1	2	3	4	5	6	7	8
	5	OFF	OFF		100				
Life	4	ON	OFF						
Life	3	OFF	ON						
	2	ON	ON			CEST			
	60%			OFF	OFF	OFF			
	65%			ON	OFF	OFF			
	70%			OFF	ON	OFF			
Throchold	75%			ON	ON	OFF			
Threshold	80%			OFF	OFF	ON			
	85%			ON	OFF	ON			
	90%			OFF	ON	ON			
	95%			ON	ON	ON			
	60	1 1 1 1		12.2			OFF	OFF	OFF
	55						ON	OFF	OFF
	50						OFF	ON	OFF
Time	45						ON	ON	OFF
Time	40						OFF	OFF	ON
	35						ON	OFF	ON
	30						OFF	ON	ON
	25						ON	ON	ON

Juno First DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	8
	3	OFF	OFF	187	=3.5				
110	4	ON	OFF						
Life	5	OFF	ON						
	3	ON	ON						
	1 (Easiest)			OFF	OFF	OFF			
	2			ON	OFF	OFF			
	3			OFF	ON	OFF			
Difficulty	4			ON	ON	OFF			
Difficulty	5			OFF	OFF	ON			
	6			ON	OFF	ON			
	7			OFF	ON	ON.			
	8 (Hardest)			ON	ON	ON			

Xevious DIPSW Setup

I	DIP SW1	1	2	3	4	5	6	7	8
	3.	OFF	OFF						
T10.	1	ON	OFF						
Life	2	OFF	ON						
	5	ON	ON						
Flags Award	Yes			OFF					
Bonus Life	No			ON					
	Normal				OFF	OFF			
Paletanian	Easy				ON	OFF			
Difficulty	Hard				OFF	ON			
	Hardest				ON	ON			
	20k60k60k / 20k70k70k		100				OFF	OFF	OFF
	10k40k40k / 10k50k50k						ON	OFF	OFF
	10k50k50k / 20k50k50k						OFF	ON	OFF
Exten Life	20k50k50k / 20k60k60k						ON	ON	OFF
Extra Life	20k70k70k / 20k80k80k						OFF	OFF	ON
	20k80k80k/30k100k100k						ON	OFF	ON
	20k 60k / 20k H0k						OFF	ON	ON
	None						ON	ON	ON

DIP SW2		1	2	3	4	5	6	7	8
Machine Set	Set I	OFF	OFF					1	
	Set 2	ON	OFF						
	Set 3	OFF	ON						
	Super Xevious	ON	ON						

Mr. Do's Castle DIPSW Setup

DIP SW		1	2	3	4	5	6	7	8
	Easy	OFF	OFF						
Difficulty	Medium	ON	OFF						
Difficulty	Hard	OFF	ON						
	Hardest	ON	ON						
Mashina Cat	Set 1			OFF					
Machine Set	Set 2			ON					
Advance Level On	Off				OFF		100		
Getting Diamond	On				ON				
Potentife	Easy					OFF			
Extra Life	Hard					ON			
Secretary.	3						OFF	OFF	
Life	4						ON	OFF	
Life	5						OFF	ON	
	2						ON	ON	

Moon Cresta DIPSW Setup

DIP S	W1	1	2	3	4	5	6	7	8
Ester Life	30000	OFF							
Extra Life	50000	ON							
Marking Car	Set I	100	OFF						
Machine Set	Set 2		ON						

Pinball Action DIPSW Setup

DIP S	SW1	1	2	3	4	5	6	7	8
	Mode 1	OFF	OFF		151				
* Control	Mode 2	ON	OFF						
Control	Mode 3	OFF	ON						
	Mode 4	ON	ON						
	3		01		1000	OFF	OFF		
Life	4					ON	OFF		
Life	5					OFF	ON		
	2					ON	ON		

#### \*Control

FU	Left Paddle	Right Paddle	Shoot	Shake
Mode 1	LEFT	RIGHT	S1	S2
Mode 2	S1	S2	UP/DOWN	LEFT/RIGHT
Mode 3	LEFT	RIGHT	UP	SI
Mode 4	LEFT	RIGHT	UP	DOWN

	DIP SW2	1	2	3	4	5	6	7	8
	70k 200k	OFF	OFF	OFF					
	70k 200k 1000k	ON	OFF	OFF					
	100k	OFF	ON	OFF					
Extra Life	100k 300k	ON	ON	OFF					
Extra Life	100k 300k 1000k	OFF	OFF	ON					
	200k	ON	OFF	ON					
	200k 1000k	ON	ON	ON				100	
	None	ON	ON	ON					
Extra	Easy				OFF				
EXIII	Hard	FAM			ON				
	Easy					OFF	OFF		
Difficulty	Medium					ON	OFF		
(Flippers)	Hard					OFF	ON		
X 3577 379	Hardest					ON	ON		
	Easy						-UU	OFF	OFF
Difficulty	Medium							ON	OFF
(Outlans)	Hard							OFF	ON
	Hardest							ON	ON

Scramble DIPSW Setup

DIP SW	1	1	2	3	4	5	6	7	- 8
	3	OFF	OFF						
T SEa	4	ON	OFF						
Life	5	OFF	ON						
	2	ON	ON						
Machine Cot	Set 1			OFF					
Machine Set	Set 2			ON					

Super Pacman DIPSW Setup

	DIP S	WI	1	2	3	4	5	6	7	8
	0	(Normal)	OF	OFF	OFF	OFF			100	
	1	(Easiest)	ON	OFF	OFF	OFF				
	2		OFF	ON	OFF	OFF				
	3		ON		OFF	OFF		_		
	4		OFF		ON	OFF				
	5		ON	OFF	ON	OFF				
	6	(Medium)			ON	OFF				
	7	(wieululii)								
Difficulty			ON	ON	ON	OFF				
	8		OFF		OFF	ON				
	9		ON	OFF	OFF	ON				
	A		OFF	ON	OFF	ON				
	В	(Hardest)	ON	ON	OFF	ON				
	C	(Easy Aut	o) OFF	OFF	ON	ON				
	D	(Auto)	ON	OFF	ON	ON				
	E	(Auto)	OFF	HEIOSOMINION	ON	ON				
	F	(Hard Aut		ON	ON	ON				
	*30k	100k	7 3 3				OFF	one	0.00	
	30k	100k					OFF	OFF	OFF	
	*30k	120k 80k					ON	OFF	OFF	
	*40k	120k								
	30k	120k					OFF	ON	OFF	
	*30k		0k				ON	ON	OFF	
Extra Life	30k *40k		0%: :0%:				O.Y	On	OFF	
	30k		0k				OFF	OFF	ON	
	*30k						ON	OFF	ON	
	30k *40k	120k 12	0k		134		UN	Off	UN	
	30k						OFF	ON	ON	
		None					ON	ON	ON	
Machine		Set 1						011	011	OFF
Set		Set 2								ON
	DIP S		1	2	3	4	5	6	7	8
	32 3	3	OFF	OFF			9	0		0
		1	ON	OFF						
Life		2	OFF	ON						
		#5	ON	ON						

# Bomb Jack DIPSW Setup

DIP S	W1	1	2	3	-4	5	6	7	8
	3	OFF	OFF						
Life	4	ON	OFF						
Lile	5	OFF	ON	15.5					
	2	ON	ON						
	Easy			OFF	OFF				
Bird Speed	Medium	19 1		ON	OFF				
Ditt Speed	Hard			OFF	ON				
	Hardest			ON	ON		1		
	Easy					OFF	OFF		
Enemies Number	Medium		0.5		11-	ON	OFF		
& Speed	Hard					OFF	ON		
	Hardest	0.0				ON	ON		
Special Coin	Easy	100	OF F					OFF	
opeciai Com	Hard							ON	

## Shao-Lin's Road DIPSW Setup

DIP	SWI		1	2	3	4	5	6	7	- 8
		3	OFF	OFF						
Life		5	ON	OFF						
Life		7	OFF	ON				100		
		2	ON	ON	M.			No.		
	30k	70k			OFF	OFF				
Extra Life	40k	80k			ON	OFF				
Extra Life	40k		100		OFF	ON	nn)			
	50k	70		0 7	ON	ON	HITT.			
	E	15Y					OFF	OFF		
Difficulty	Med	lium					ON	OFF		
	Ha	ard					OFF	ON		
-1177 70	Har	dest	-				ON	ON		

# King & Ballon DIPSW Setup

DIP 5	SW1	1	2	3	4	5	6	7	8
	10000	OFF	OFF						
Extra Life	12000	ON	OFF				160		
Extra Life	15000	OFF	ON						
	None	ON	ON						
Life	2			OFF					
Lite	3	-		ON					
Speech	Off				OFF	5 706	700	-	
speech	On		10.0	n .	ON				

#### 1943 DIPSW Setup

DIP	SW1	1	2	3	4	5	6	7	8
	1(Easiest)	OFF	OFF	OFF	OFF	_			1
	2	ON	OFF	OFF	OFF				
	3	OFF	ON	OFF	OFF				
	4	ON	ON	OFF	OFF				
	5	OFF	OFF	ON	OFF				
	6	ON	OFF	ON	OFF				
	7	OFF	ON	ON	OFF				
Bird Speed	8	ON	ON	ON	OFF				
Bird Speed	9	OFF	OFF	OFF	ON	1			1
	10	ON	OFF	OFF	ON				
	11	OFF	ON	OFF	ON				
7910	12	ON	ON	OFF	ON				
TIO	13	OFF	OFF	ON	ON				
MOL	14	ON	OFF	ON	ON				
	15	OFF	ON	ON	ON	-111			
	16(Hardest)	ON	ON	ON	ON				
2 Players Game	2 Credits				-	OFF			-
a conjers same	1 Credit					ON			
Allow Continue	Yes						OFF		
Allow Continue	No						ON		

<sup>\*2</sup> Players Mode is enabled only in Upright and 2-Joystick mode

# Van-Van Car DIPSW Setup

DIP	SWI	1000	1	2	3	4	-5	6	7	8
	N	one	OFF	OFF						
Extra Life	20k	100k	ON	OFF						
Extra Life	40k	140k	OFF	ON						
	70k	200k	ON	ON						
	3	3			OFF	OFF				
Life		4			ON	OFF				
1,116		5			OFF	ON				
		6			ON	ON				

#### Pacman Plus DIPSW Setup

DIP SW1		1	2	3	4	.5	6	7	8
176	5	OFF	OFF	TOT					
	3	ON	OFF						
Life	2	OFF	ON	mul					
	1	ON	ON	W.					
Extra Life	None	Kar	mo	OFF	OFF				1
	20000	1000		ON	OFF				
	15000	601	7111	OFF	ON				
	10000		200	ON	ON				
Difficulty	Ensy			an'		OFF			
	Hard			ALC:		ON			
Ghost Name	Normal	rote :	OT .				OFF		
	Alternate		200	200			ON		
Speed	Normal		111					OFF	
	Fast	Sea !	100	3111			-	ON	

## Dig Dug DIPSW Setup

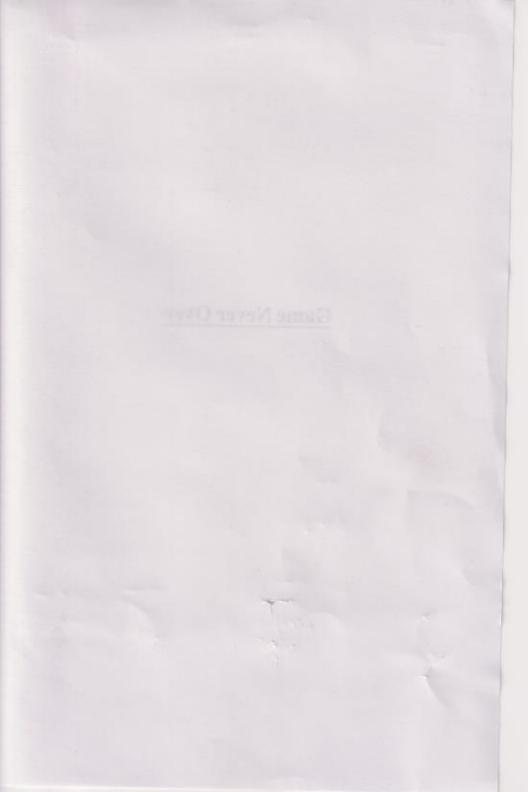
DIP SW1		1	2	3	4	5	6	7	8	
Life	3		OFF							
	5									
Extra Life	30k	80k		OFF	OFF					
	30k	100k		ON	OFF					
	30k	120k		OFF	ON					
	30k	150k		ON	ON					
Level Select	.0	ff				OFF				-
	(	)n				ON	115	- 01/		

#### Amidar DIPSW Setup

DIP SW1		1	2	3	4	5	6	7	- 8	
		3	OFF	OFF						
7.10		4	ON	OFF						
Life		5	OFF	ON						
		5	ON	ON						
Extra Life	50k	80k			OFF					
	30k	70k			ON					

## Zaxxon DIPSW Setup

DIP :	SW1	11	2	3	4	5	6	7	8
	10000	OFF	OFF						
Par Tite	30000	ON	OFF						
Extra Life	20000	OFF	ON						
	40000	ON	ON						
	3			OFF	OFF				
Life	5			ON	OFF				
Life	4			OFF	ON				
	3			ON	ON				



# Game Never Over